

# CWSF 2013 - Lethbridge, Alberta



## Laurence Emery

### Airport Ice Protection... Helping the environment take off or crash & burn?

**Challenge:** Environment

**Category:** Intermediate

**Region:** Peterborough

**City:** Peterborough, ON

**School:** Adam Scott C.V.I.

**Abstract:** I researched environmental impacts of airport de-icing compounds. Aircraft de-icing and runway anti-icing are expensive procedures that threaten the environment through chemical runoff. I conducted an experiment to observe effects of airport ice protectors on *Daphnia magna*, *Scenedesmus* and Harvester ants. I hypothesized that Type 1 and Sodium Formate will be the most harmful substances and Potassium Acetate and Urea will be the least harmful.

#### Biography

I'm Laurence Emery a grade 8 student at Queen Mary PS, Peterborough, Ontario. The first Regional SF I entered was in grade 2 with a project called, "The Eggsperiment." It wasn't a prize winner but the rewarding experience encouraged me to participate each consecutive year. I have interests in various disciplines of science which are reflected in the projects I have done, they include: physics, mechanical applications, human physiology, chemistry and now environmental studies. As I progressed and saw the older students' projects I hoped I could present a high quality experiment that would send me to the CWSF. This is the second year I'm eligible and my dream has come true again! At school I volunteer at the library and make the daily announcements, my riddle of the week is very popular. I also compete on the Track Team and tend to our award-winning butterfly garden. At home I build model airplanes and I'm passionate about fish. I am the neighborhood expert on aquariums. For years I have participated in the Canadian cross country skiing program. I'm also a Scout, figure skater, triathlon participant, air cadet and an avid canoe tripper. I hope for an amazing experience this year.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$300
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 300</b>